

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number  
**WO 2004/091130 A1**

(51) International Patent Classification<sup>7</sup>: **H04L 1/18**,  
29/08, 12/56 (NL). **TORSNER, Johan** [FI/FI]; Metsätorpantie 2C9,  
FIN-02430 MASALA (FI).

(21) International Application Number:  
**PCT/SE2004/000543** (74) Agent: **MAGNUSSON, Monica**; Ericsson AB, Patent Unit Radio Networks, S-164 80 Stockholm (SE).

(22) International Filing Date: 6 April 2004 (06.04.2004) (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

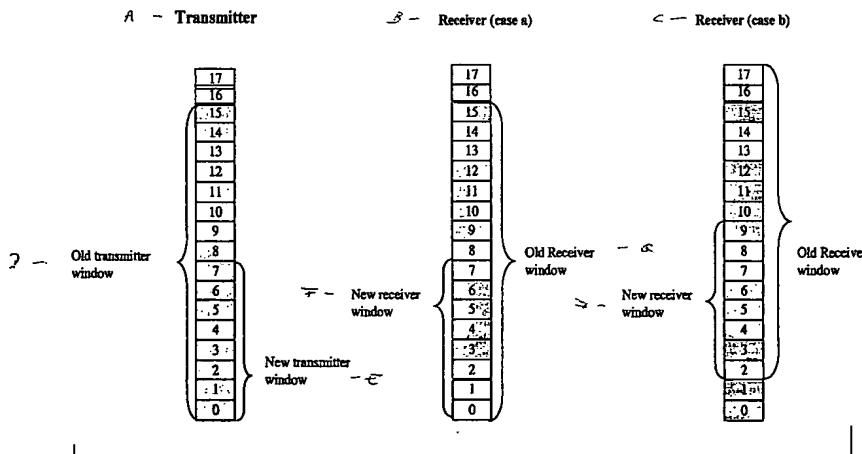
(30) Priority Data: 0301048-5 7 April 2003 (07.04.2003) SE

(71) Applicant (for all designated States except US): TELEFONAKTIEBOLAGET LM ERICSSON (PUBL) [SE/SE]; S-164 83 Stockholm (SE).

(72) Inventors; and (75) Inventors/Applicants (for US only): **BERGSTRÖM, Joakim** [SE/SE]; Erik Dahlbergsgatan 29 B, 5tr, S-115 32 STOCKHOLM (SE). **VAN LIESHOUT, Gert-Jan** [NL/NL]; Soerenseweg 40, NL-7314 CG APELDOORN

[Continued on next page]

## (54) Title: RLC WINDOW SIZE RECONFIGURATION



WO 2004/091130 A1

(57) Abstract: A telecommunications device comprises a transceiver (33); a radio link control entity (50); and, a radio link control (RLC) buffer memory (150). The transceiver (33) which enables the device to communicate over an air interface (32). The radio link control entity (50) forms uplink RLC protocol data units (PDUs) for transmission over the air interface (32) and receives downlink RLC protocol data units (PDUs) over the air interface (32). The radio link control (RLC) buffer memory (150) is configured to include a transmitter buffer for storing the uplink RLC protocol data units (PDUs) and a receiver buffer for storing the downlink RLC protocol data units (PDUs). The radio link control entity includes RLC reconfiguration logic means (200) which reconfigures at least one of a size of a transmitter buffer window and a size of a receiver buffer window. In performing the reconfiguration, the RLC reconfiguration logic means implements a strategy for handling at least one of (1) downlink RLC protocol data units (PDUs) which are outside a new receiver buffer window; and (2) uplink RLC protocol data units (PDUs) which are either outside a new transmitter window or whose receipt by the radio access network has not been positively acknowledged.

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designation US*
- *of inventorship (Rule 4.17(iv)) for US only*

**Published:**

- *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*